

1-5/16" (33.3 mm) Industrial Single Turn, Bushing Mount, Conductive Plastic



FEATURES

- Center Tap Available
- Continuous Rotation and Mechanical Stops Both Standard
- Suitable Model for all Types of Industrial Applications



RoHS
COMPLIANT

ELECTRICAL SPECIFICATIONS

PARAMETER	MIL-PRF-39023 TEST PROCEDURES APPLY	
	STANDARD	SPECIAL
Ohmic Value Range	1 k Ω to 50 k Ω	1 k Ω to 50 k Ω
Tolerance	$\pm 10\%$	$\pm 5\%$
Linearity (Independent)	STANDARD	BEST PRACTICAL
	$\pm 0.5\%$	$\pm 0.25\%$
Output Smoothness	0.1 % maximum	
Power Rating	40 °C Ambient 2 W derated to zero at 125 °C	
Electrical Angle		
Continuous	345° \pm 4°	
Stops	340° \pm 5°	
Insulation Resistance	1000 M Ω minimum at 500 V _{DC}	
Dielectric Strength	1000 V _{RMS} , 60 Hz	
Absolute Minimum Resistance	1.0 % of total resistance	
Minimum Voltage	0.5 % maximum	
Temperature Coefficient of Resistance	± 500 ppm/°C maximum	

MATERIAL SPECIFICATIONS

Housing	Molded glass filled thermoplastic
Rear Lid	Glass filled thermoset plastic
Shaft	Stainless steel, non-magnetic
Terminals	Brass, plated for solderability, Non-passivated
Mount Hardware	Steel, nickel plated
Lockwasher Internal Tooth:	Brass, nickel plated
Panel nut:	

ENVIRONMENTAL SPECIFICATIONS

Vibration	15 Gs thru 2000 Hz
Shock	50 g
Salt Spray	48 hours
Rotational Life	2 million
Shaft Revolutions	
Operating Temperature Range	- 55 °C to + 125 °C

ORDERING INFORMATION/DESCRIPTION

138	B	0	0	20K	B010
MODEL	BUSHING MOUNT	MECHANICAL OPTIONS	OTHER OPTIONAL FEATURES	RESISTANCE CODE	PACKAGING
		0. Continuous 2. Stops	0. Standard (End Taps) 1. Center Tap (Within 5° of Electrical Center)		Box of 10 pieces
Other characteristics will be standard as described on this specification sheet. If special characteristics are required such as special linearity tolerance, special resistance tolerance, non-linear functions, etc., please state these on your order.					

SAP PART NUMBERING GUIDELINES

138	B	2	1	103	B10
MODEL	STYLE	MECHANICAL OPTIONS	FEATURES	OHMIC VALUE	PACKAGING
		With Stops	With Center Tap		Box of 10 pieces

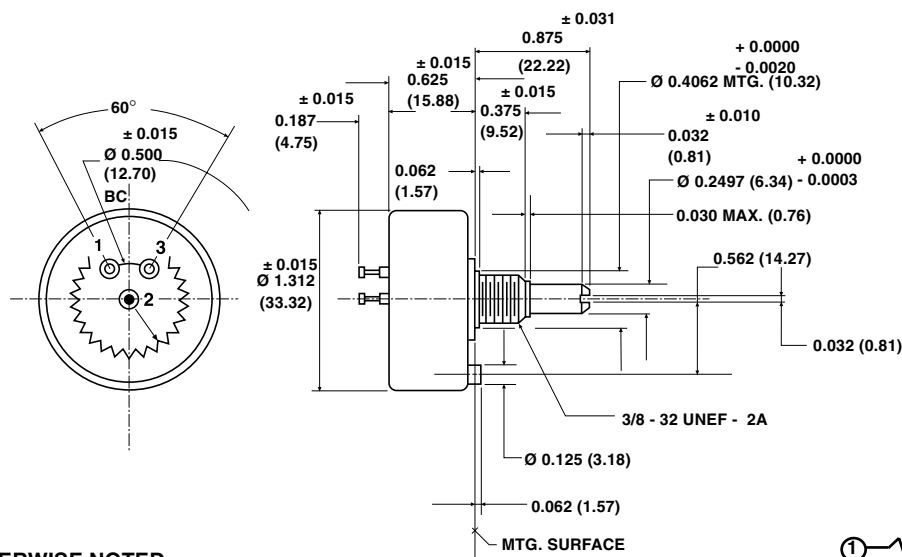
Model 138

Vishay Spectrol

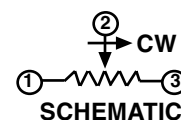
1-5/16" (33.3 mm) Industrial Single Turn,
Bushing Mount, Conductive Plastic



DIMENSIONS in inches (millimeters)

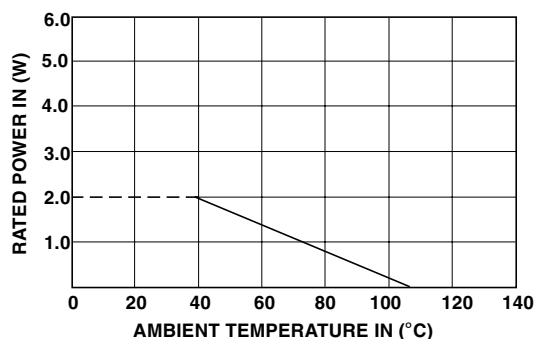


TOLERANCES: UNLESS OTHERWISE NOTED
DECIMALS ± 0.005 ANGLES $\pm 2^\circ$



MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° (continuous) 340° $\pm 5^\circ$ stops	
Bearing Type	Sleeve	
Torque (Maximums)	STARTING 1.0 oz - in (72 g - cm)	RUNNING 0.7 oz - in (50.40 g - cm)
Runouts (Maximums)		
Shaft Runout (TIR)	0.002 in (0.05 mm)	
Pilot Dia. Runout (TIR)	0.003 in (0.08 mm)	
Lateral Runout (TIR)	0.005 in (0.13 mm)	
Shaft End Play	0.008 in (0.20 mm)	
Shaft Radial Play	0.003 in (0.08 mm)	
Weight	1.0 oz maximum (28.35 g)	
Stop Strength	8.0 in - lbs (9.21 kg - cm) (Stops Version Only)	

POWER RATING CHART



MARKING

Unit Identification

Units shall be marked with Vishay Spectrol name, model number, resistance and tolerance, linearity, terminal identification, and data code Applicable test procedures: MIL-R-39023



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All product specifications and data are subject to change without notice.

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